

Notice of Allowability

Application No.

10/781,719

Examiner

Mike Stahl

Applicant(s)

MUKASA, KAZUNORI

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.
2. ☐ The allowed claim(s) is/are 1-13.
3. ☒ The drawings filed on 20 February 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/794,619.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 2/20/04, 5/20/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


Rodney Bovernick
Supervisory Patent Examiner
Technology Center 2800

Allowable Subject Matter

Claims 1-13 are allowed.

The examiner's statement of reasons for allowance follows. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claims 1 and 13 recite a set of characteristics for the second optical fiber in addition to the requirement that the second fiber has a dispersion between -14 and -6 ps/nm/km at 1550 nm. The examiner considers Onishi et al. (US 5838867) to be the closest prior art reference. Onishi discloses a fiber having characteristics which overlap those of claims 1 and 13. See for example claim 1 of Onishi. It is noted the ranges for the characteristics set forth in claims 1 and 13 are much narrower than those prescribed by Onishi, and many of the presently claimed ranges are more stringent. For example, applicant specifies a transmission loss no greater than 0.3 dB/km, a PMD no greater than $0.15 \text{ ps/km}^{1/2}$, and a bend loss of no more than 10 dB/m, while Onishi specifies a transmission loss no greater than 0.5 dB/km, a PMD no greater than $0.7 \text{ ps/km}^{1/2}$, and a bend loss of no more than 100 dB/m. Sample fiber No. 3 (fig. 10) is the only specific example which lies within in the required dispersion range, and this fiber also happens to meet the other recited characteristics except for the bend loss which slightly exceeds 10 dB/m. However, even assuming that a skilled person could slightly vary the index profile of the No. 3 fiber to achieve a lower bend loss, without excessively altering the other characteristics, Onishi still does not disclose or suggest a first fiber which simultaneously satisfies all the conditions on the first fiber which are also specified by claims 1 and 13. The closest example Onishi gives for the first fiber

Art Unit: 2874

is a dispersion shifted fiber having a dispersion of 3 ps/nm/km at 1550 nm (fig. 3; col. 9 lines 1-4). This lies outside the range required by claims 1 and 13, and there is no clear motivation to provide a different first fiber which satisfies the recited dispersion range. In summary the art of record fails to teach or suggest an optical transmission line which meets each and every limitation of claims 1 and 13. Claims 2-12 are allowed by dependence from claim 1.

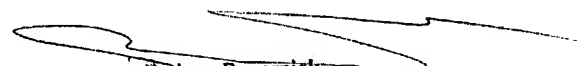
Conclusion

Any inquiry concerning this communication should be directed to Mike Stahl at (571) 272-2360. Official communications which are eligible for submission by facsimile and which pertain to this application may be faxed to (703) 872-9306. Inquiries of a general or clerical nature (e.g., a request for a missing form or paper, etc.) should be directed to the technical support staff supervisor at (571) 272-1626.

MJS

Michael J. Stahl
Patent Examiner
Art Unit 2874

July 9, 2004


Rodney Bovernick
Supervisory Patent Examiner
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